

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

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Complete If Known					
Application Number	10/722,689-Conf. #3913				
Filing Date	November 24, 2003				
First Named Inventor	Mario STEVENSON				
Art Unit	1635				
Examiner Name	Richard A. Schnizer				
Attorney Docket Number	UMY-034				

			U.S. PA	TENT DOCUMENTS	
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant
Initials* No.1		Number-Kind Code ² (if known)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear
1 45	A1*	US-6,426,073	07-30-2002	Alizon et al.	
	A2*	US-20020086356-A1		Tuschi et al.	
	A3*	US-20030055020-A1	03-20-2003	Fire et al.	
	A4*	US-20030068821	04-10-2003	Lois-Caballe et al.	
	A5*	US-20030101472-A1	05-29-2003	Baltimore et al.	•
	A6*	US-20030124513-A1	07-03-2003	McSwiggen	
	A7*	US-20030175950-A1	09-18-2003	McSwiggen	
	A8*	US-20040192629-A1	09-30-2004	Xu et al.	
П	A9*	US-20040229266-A1	11-18-2004	Tuschl et al.	
	A10*	US-20040259248-A1	12-23-2004	Tuschl et al.	
П	A11*	US-20050026278-A1	02-03-2005	Tuschl et al.	
	A12*	US-20050181382-A1	08-18-2005	Zamore et al.	
	A13*	US-20050191618-A1	09-01-2005	McSwiggen et al.	
	A14*	US-20050234007-A1	10-20-2005	Tuschl et al.	
		US-20070003960-A1	01-04-2007	Tuschl et al.	
				Tuschl et al.	
	A17*	US-7,195,916-A1	03-27-2007	Qin et al.	
		US-20030051263-A1		Fire et al.	
	A19*	US-20030056235-A1	03-20-2003	Fire et al.	
	A20*	US-20030101471-A1	05-29-2003	Baltimore et al.	
	A21*	US-20030108923-A1	06-12-2003	Tuschl et al.	
	A22*	US-20030157691-A1	08-21-2003	Qin et al.	
	A23*	US-20040006035-A1	01-08-2004	Macejak et al.	
	A24*	US-20040203145-A1	10-14-2004	Zamore et al.	
	A25*	US-20040259247-A1	12-23-2004	Tuschl et al.	
	A26*	US-20050020525-A1	01-27-2005	McSwiggen et al.	
	A27*	US-20050037988-A1	02-17-2005		T
	A28*	US-20050186586-A1	08-25-2005	Zamore et al.	
	A29*	US-20050234006-A1	10-20-2005	Tuschl et al.	
	A30*	US-20060009402-A1	01-12-2006	Zamore et al.	
Ph	A31*	US-20070003962-A1	01-04-2007	Tuschl et al.	

		FOREI	GN PATENT	DOCUMENTS		
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages	
Initials* No		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)		Applicant of Cited Document	Or Relevant Figures Appear	T⁵
145	B1	WO-02/44321-A2	06-06-2002	Maxplanck-Gesellschaft		
7	B2	WO-2004/014933-A1	02-19-2004	University of Massachusetts		
(В3	WO-2004/111191-A2	12-23-2004	University of Massachusetts		
B	B4	WO-2004/042027-A2	05-21-2004	University of Massachusetts		Г

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				Application Number	10/722,689-Conf. #3913	
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S	TATEMEN'	T BY A	APPLICANT	First Named Inventor	Mario STEVENSON	
	****			Art Unit	1635	
	(Use as man	y sheets as	necessary)	Examiner Name	Richard A. Schnizer	
Sheet	2	of	4	Attorney Docket Number	UMY-034	

PS	85	WO-01/75164-A2	10-11-2001	Whitehead Institute for Biomedical Research	
1	B6	WO-2005/001043-A2	01-06-2005	University of Massachusetts	
	87	WO-03/006477-A1	01-23-2003	University of Massachusetts	
	B8	WO-03/022052-A1	03-20-2003	California Institute of Technology	
	В9	WO-2003/070193-A2	08-28-2003	Sirna Therapeutics, Inc.	
	B10	WO-03/022228-A2	03-20-2003	California Institute of Technology	
	B11	WO-03/102131-A2	12-11-2003	Sirna Therapeutics, Inc.	
	B12	WO-03/022040-A2	03-20-2003	California Institute of Technology	
	B13	WO-02/097114-A2	12-05-2002	Ribozyme Pharmaceuticals, Inc.	
Ks	B14	WO-2005/019453-A2	03-03-2005	Sirna Therapeutics, Inc.	

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Г			NON PATENT LITERATURE DOCUMENTS	
		Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
\Box	乀	C1	Arteaga, Jose et al., "Choosing CCR5 or Rev siRNA in HIV-1," Nature, Vol. 21:230-31 (2003)	
	7	C2	Bernstein, Emily et al., "Role for a bidentate ribonuclease in the initiation step of RNA interference," <i>Nature</i> , Vol. 409:363-366 (2001)	
		C3	Billy, Eric et al., "Specific interference with gene expression induced by long, double-stranded RNA in mouse embryonal teratocarcinoma cell lines," PNAS, Vol. 98(25):14428-14433 (2001)	
		C4	Bitko, Vira et al., "An Endoplasmic Reticulum-Specific Stress-Activated Caspase (Caspase-12) is Implicated in the Apoptosis of A549 Epithelial Cells by Respiratory Syncytial Virus," <i>Journal of Cellular Biology</i> , Vol. 80: 441-454 (2001)	
		C5	Bitko, Vira et al., "Phenotypic silencing of cytoplasmic genes using sequence-specific double- stranded short interfering RNA and its application in the reverse genetics of wild type negative- strand RNA," BMC Microbiology, Vol. 1(34): 1-11 (2001)	
П		C6	Bowerman, Bruce et al., "A nucleoprotein complex mediates the integration of retroviral DNA," Genes & Development, Vol. 3:469-478 (1989)	
		C7	Brichacek, Beda et al., "Quantitative Competitive RNA PCR for Quantitation of Virion-Associated HIV-1 RNA," <i>Methods</i> , Vol. 12:294-299 (1997)	
	(C8	Caplen, Natasha et al., "dsRNA-mediated gene silencing in cultured Drosophila cells: a tissue culture model for the analysis of RNA interference," Gene, Vol. 252:95-105 (2000)	
	4	C9	Capler, Natasha et al., "Specific inhibition of gene expression by small double stranded RNAs	

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				Application Number	10/722,689-Conf. #3913	
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				Art Unit	1635	
1	(Use as many sh	eets es	necessary)	Examiner Name	Richard A. Schnizer	
Sheet	3	of	4	Attorney Docket Number	UMY-034	

	T	in invertebrate and vertebrate systems," PNAS, Vol. 98(17):9742-9747 (2001)					
N 4	C10	Coburn, Glen et al., "Potent and Specific Inhibition of Human Immunodeficiency Virus Type 1					
K	ł	Replication by RNA Interference," Journal of Virology, Vol. 76(18):9225-9231 (2002)					
	C11	Domburg, Ralph et al., "HIV-1 Gene Therapy: Promise for the Future," Advances in Pharmacology, Vol. 49:229-261 (2000)					
	C12	Elbashir, Sayda et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," <i>Nature</i> , Vol. 411:494-498 (2001)					
	C13.	Elbashir, Sayda et al., "Functional anatomy of siRNAs for mediating efficient RNAi in Drosophila melanogaster embryo lysate," <i>The EMBO Journal</i> , Vol. 20(23):6877-6888 (2001)					
	C14	Elbashir, Sayda et al., "RNA interference is mediated by 21- and 22-nucleotide RNAs," Genes & Development, Vol. 15:188-200 (2001)					
	C15	Fire, Andrew et al., "Potent and specific genetic interference by double-stranded RNA in Caenorhabditis elegans," Nature, Vol. 391:806-811 (1998)					
	C16	Hammond, Scott et al., "An RNA-directed nuclease mediates post-transciptional gene silencing in Drosophila cells," <i>Nature</i> , Vol. 404:293-296 (2000)					
	C17						
	C18	Ketting, René et al., "mut-7 of C. elegans, Required for Transposon Silencing and RNA Interference, Is a Homolog of Werner Syndrome Helicase and RNaseD," <i>Cell</i> , Vol. 99:133-141 (1999)					
	C19	Kimpton, Jaculyn et al., "Detection of Replication-Competent and Pseudotyped Human Immunodeficiency Virus with a Sensitive Cell Line on the Basis of Activation of an Integrated &-Galactosidase Gene," <i>Journal of Virology</i> , Vol. 66(4):2232-2239 (1992)					
	C20	Li, Yuexia et al., "Molecular Characterization of Human Immunodeficiency Virus Type 1 Cloned Directly from Uncultured Human Brain Tissue: Identification of Replication-Competent and -Defective Viral Genomes," <i>Journal of Virology</i> , Vol. 65(8):3973-3985 (1991)					
	C21	Moore, John et al., "New Targets for Inhibitors of HIV-1 Replication," Nature, Vol. 1:40-49 (2000)					
	C22	Nykänen, Antti et al., "ATP Requirements and Small Interfering RNA Structure in the RNA Interference Pathway," Cell, Vol. 107:309-321 (2001)					
	C23	Paddison, Patrick et al., "Stable suppression of gene expression by RNAi in mammalian cells," PNAS, Vol. 99(3):1443-1448 (2002)					
	C24	Sharkey, Mark et al., "Persistence of episomal HIV-1 infection intermediates in patients on highly active anti-retroviral therapy," <i>Nature Medicine</i> , Vol. 6(1):76-81 (2000)					
	C25	Sharp, J.G. et al., "Oligonucleotide Enhanced Cytotoxicity of Idarubicin for Lymphoma Cells," Leukemia and Lymphoma, Vol. 42:417-427 (2001)					
	C26	Sharp, Philip. "RNA interference-2001," Genes and Development, Vol. 15:485-490 (2001)					
	C27	Tabara, Hiroaki et al., "The <i>rde-1</i> Gene, RNA Interference and Transpoon Silencing in C. elegans," Cell, Vol. 99:123-132 (1999)					
Ţ	C28	Ui-Tei, Kumiko et al., "Sensitive assay of RNA interference in <i>Drosophila</i> and Chinese hamster cultured cells using firefly luciferase gene as target," <i>FEBS Letters</i> , Vol. 479:79-82 (2000)					
RS	C29	Wang, Ming-Bo et al., "High-efficiency silencing of a ß-glucuronidase gene in rice is correlated with repetitive transgene structure but is independent of DNA methylation," <i>Plant Molecular Biology</i> , Vol. 43:67-82 (2000)					

Examiner Signature Date Considered Cul/07

Subs	stitute for form 1449/PT	0		Complete if Known		
700				Application Number	10/722,689-Conf. #3913	
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	(Use as many	sheets as	necessary)	Examiner Name	Richard A. Schnizer	
Sheet	4	of	4	Attorney Docket Number	UMY-034	

RS	C30	Welker, Reinhold et al., "Virion Incorporation of Human Immunodeficiency Cirus Type 1 Nef Is Mediated by a Bipartite Membrane-Targeting Signal: Analysis of Its Role in Enhancement of Viral Infectivity," <i>Journal of Virology</i> , Vol. 72(11):8833-8840 (1998)	
	C31	Wesley, S. Varsha et al., "Construct design for efficient, effective and high-throughput gene silencing in plants," <i>The Plant Journal</i> , Vol. 27(6):581-590 (2001)	
\prod	C32	Yang, Shicheng et al., "Specific Double-Stranded RNA Interference in Undifferentiated Mouse Embryonic Stem Cells," <i>Molecular and Cellular Biology</i> , Vol. 21(22):7807-7816 (2001)	
	C33	Zamore, Phillip et al., "RNAi: Double-Stranded RNA Directs the ATP-Dependent Cleavage of mRNA at 21 to 23 Nucleotide Intervals," Cell, Vol. 101:25-33 (2000)	
	C34	International Search Report for Application No. PCT/US03/37860 dated 7/21/2005	
RS.	C35	Written Opinion for Application No. PCT/US03/37860 dated 5/31/2007	

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